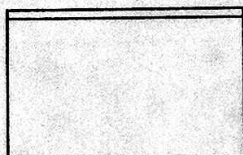


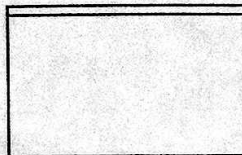
Name _____ Period _____ Date _____

STATES OF MATTER

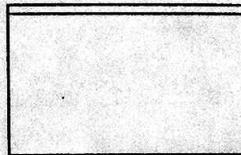
1. Draw a diagram to represent 8 particles in each state of matter. (HINT: Recall that plasma is gas-like but with one major difference.)



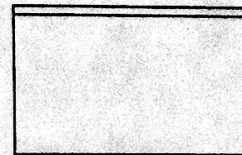
SOLID



LIQUID



GAS



PLASMA

CLASSIFICATION OF MATTER

Classify the following as element (E), compound (C), heterogeneous mixture (Ht), or Homogenous (Hm)

- | | | | |
|-----------------|-------|--------------------------------------|-------|
| 2. hydrogen gas | _____ | 4. air | _____ |
| 3. orange juice | _____ | 5. carbon dioxide (CO ₂) | _____ |
6. Compare and contrast a *mixture* and a *compound*. How are they alike/different?
7. Compare and contrast a *Homogeneous* and *Heterogeneous mixture*. How are they alike/different?

Classify as solution, colloid, or suspension. *If it is a solution identify the solute and the solvent.*

- | | | | |
|-------------------|-------|-------------------------|-------|
| 8. smoke | _____ | 12. Chicken Noodle Soup | _____ |
| 9. paint | _____ | 13. Kool-Aid | _____ |
| 10. tap water | _____ | 14. Milk | _____ |
| 11. whipped cream | _____ | 15. Black Coffee | _____ |

PROPERTIES & CHANGES IN MATTER

Classify the following properties of matter as chemical (C) or physical (P).

- | | | | |
|-------------------|-------|--------------------|-------|
| 16. flexible | _____ | 19. boils at 20°C | _____ |
| 17. Heat Released | _____ | 20. Bubbles | _____ |
| 18. Color Change | _____ | 21. low reactivity | _____ |

Classify the following as chemical changes (C) or physical changes (P).

- | | | | |
|--------------------------|-------|--|-------|
| 22. grapes fermenting | _____ | 29. Curds forming in milk | _____ |
| 23. copper melting | _____ | 30. Cracking open an egg | _____ |
| 24. recycling aluminum | _____ | 31. Carmelizing sugar | _____ |
| 25. gasoline exploding | _____ | 32. H ₂ SO ₄ + Sugar | _____ |
| 26. Wood Burning | _____ | 33. Melting Glass | _____ |
| 27. Freezing of water | _____ | 34. Adding Na ¹⁺ | _____ |
| 28. Breaking a toothpick | _____ | to Water | _____ |

Characteristics	Solids	Liquids	Gases	Plasma
Has a definite shape & volume				
Has no definite shape, but has a definite volume				
Has no definite shape & no definite volume				
Will take the shape of its container				
Particles will expand to fill all available space				
Particles are packed tightly & "locked" in place				
Particles are close together, but freely move around				
Exists in stars & fire				
Water at 0 C (Frozen)				
Water at 100 C (Boiling/ Vapor)				
Water at 50 C (Room Temp.)				
Strong Bonds				
No Bonds				
Weak Bonds				

SEPARATION OF MATTER

Identify/ List/ Explain

How you could separate the following mixtures.

Salt Water:

Wood chips/ Sugar/ Gold/ Lead:

Water and Coffee Grounds: